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Hongjun Guo* (hxg399@miami.edu). *On the mean speed of bistable transition fronts in unbounded domains.*

In this talk, we will present the existence and further properties of propagation speeds of transition fronts for bistable reaction-diffusion equations in exterior domains and in some domains with multiple cylindrical branches. In exterior domains, we show that all transition fronts with complete propagation propagate with the same global mean speed, which turns out to be equal to the uniquely defined planar speed. In domains with multiple cylindrical branches, we show that the solutions emanating from some branches and propagating completely are transition fronts propagating with the unique planar speed. I will also give some geometrical and scaling conditions on the domain, either exterior or with multiple cylindrical branches, which guarantee that any transition front has a global mean speed. (Received December 12, 2018)